

A Dissertation

On

Dated March 3 1829

Generation

submitted to the examination

The Trustees and Faculty

of the

University of Pennsylvania

for

The Degree of Doctor of Medicine

by

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Philadelphia

1828.

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Few subjects in Physiology have afforded a more extended field for the ingenious speculations of Philosophers than that of Generation and few have afforded stronger evidence of the various & opposed results of human investigation.

The multiplied hypotheses on this subject only go to show the existence of an almost innate principle that would explain the *modus operandi* of every function and operation of nature both moral & physical.

Had Philosophers confined themselves to the investigation of attainable facts and left untouched the inscrutable laws of Providence science would not now be burdened with that load of hypothetical rubbish which must be removed or avoided before it can make any proficient advancement.

The greatest obstacles to the progress of physiology are the glittering hypotheses of men who seem to delight in dazzling our eyes and leading us every step into "darkness more gloomy and path more inextricable" These hypotheses are like those deceitful lights which sometimes divert the unwary traveller from the right path into marshes thickly covered with impenetrable obstacles.

Though vain hypotheses act so perniciously upon Philosophy we would not, with some others condemn all Theory and renounce every thing as useless which is not the immediate result of experience Theories built upon facts & analogy are entitled to our attention and deserve to be treated with all the respect that the importance of the subject demands.

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No science can make much advancement, or indeed hardly exist without theory and those merely mechanical members of the profession who would make our science a trade can at most do no more than corroborate by their experience the inductions of others.

As man is hourly exposed to the noxious influence of a thousand different causes operating to deprive him of a precarious existence it became expedient that some provision should be made to fill up the blanks produced by the invasions of Death the great scourge of animate creation. That function with which the Gods of nature have provided man for the fulfillment of the above design is denominated Generation.

The parts of generation in the human species both male and female are so well known that it would be superfluous to occupy time in enumerating & describing them. At a proper period of their development a certain propensity is acquired leading to the performance of an act necessary to the consummation of their original design.

Though in the investigation of this subject we are more particularly concerned with the physiology of the human system, the facts gathered from experiments made on other animals bearing a resemblance in their genital organs may be brought forward to explain the changes which take place in the human female. The experiments of the celebrated De Graaf afford us an accurate and minute account of the appearances presented by rabbits at different periods after coition.

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On opening one of these animals 1/2
an hour subsequent to coition nothing remarkable was
discovered except that the cornua of the uterus had
acquired something of a redish hue and the ova
in the ovaries were divested in a slight degree of their
transparency.

Six hours after coition dissecting another
he observed that the tunicle of the ova appeared red-
der than usual and on puncturing them with a
needle there issued forth a viscous pellucid liquor
followed by a discharge of blood from the sanguifer-
ous vessels ramifying in their texture.

Twenty four hours after coitus the chan-
ges wrought in the generative organs were very stri-
king. the tunicle of three ova in one and five in the
other ovarium were opaque and of a pale redish
hue. on their surface were seen numerous prominent
or like papillae and when cut into they exhibited
in the middle a small quantity of limpid fluid
but around the circumference a redish matter of more
consistence. He examined another twenty seven
hours after copulation and found that the cornua
of the matrix together with the oviducts were bloody
and that the latter embraced the ovaria on every side
like the mouth of a funnel. About the centre part of
the surface of the tunicle there were as in the preceding
case small papillary eminences through which
upon pressure a clear liquor started out and after-
ward a sanguineous coloured fluid of denser con-
sistence.

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No ova were discovered on inspection in the cornua of the uterus but the rugose internal membrane of the latter was slightly thickened.

Forty eight hours after coition seven tumours in one ovary and three in the other were in the same state of mutation as was observed in the foregoing experiments. The papillae however were more projecting and when the ovaries were gently squeezed permitted the escape of an albuminous fluid which was not succeeded as before by the evacuation of a redish matter.

Fifty two hours after coition did not exhibit so many tumours altered as in the former instances. Connected with these he perceived a small glandulous substance in which was a small cavity. Seeing no fluid in this he suspected that the limpid matter enveloped by its membrane had been detached & expelled he therefore carefully searched the oviduct and cornua but unsuccessfully.

After the lapse of seventy two hours he inspected another "quæ nobis longe aliam et maximè mirandam mutationem exhibuit" the infundibulum which on every side closely invested the ovaries being retracted. three tumours a little larger and harder than those before witnessed presented themselves to view on the summit of each a papilla pierced by a delicate foramen exposed a small cavity entirely empty. He therefore attentively inspected again and again the passages by which the ova should escape and at length found in the middle of the right oviduct one and in the remotest part of the cornu of the same side

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The latter day, some supposition the
appearance of myriophyllon here, will serve even to
manifest a tendency to collect the intermediate
of the embryo. The placenta was seen even in the
end with the same attachment to the middle.

Continuing his experiments the next day 'Gamm' critic the embryo had become so much enlarged that he thinks it not be recognized. In a thoracic region two sanguineous spots were observable and the same number of white ones. It still remained stationary, a short time after a red one had appeared and was visible in the afternoon.





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and in some cases the mother is the one who is the cause of the child's death.

It is a well known fact that in some cases the mother is the cause of the child's death. This is especially true in cases of puerperal fever, which is a disease of the uterus. It is a disease which is caused by a germ which enters the uterus through the vagina. The germ then multiplies and causes the uterus to become inflamed. This inflammation then spreads to the blood vessels and causes the blood to become poisoned. The result is that the mother dies and the child is born dead.

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If it should appear to you as if we
 say that we are not concerned with the general cir-
 culation of the mind, we applied to the mind, but it
 is like the cerebral plane which nature constantly
 moves for the accomplishment of her designs that it alone
 is to have a valid objection against this doctrine.

not to remove it merely upon a whim - for it would
be ill. as it was a relic of the old system, and we
had to show the people in our new system of taxation. Before it
was put into the new system, it was a relic of the old system, and we
must do so to the satisfaction of a political party which is
prejudiced against it. But the object of the new system
is to show that it is a relic of the old system, and we must do so to the satisfaction of a political party which is
prejudiced against it.

I have been thinking of writing you
for some time, but have been so busy that I
could not find time. I am now in the
hospital and am very much improved.





any thing satisfactory untill a frequent repetition of his experiments, performed with the greatest delicacy did exhibit some appearances of impregnation in the ovaries after the division of the fallopian tubes. But it must be confessed that these experiments are divested of any claim to certainty from the high probability that the tubes remained pervious after their division a sufficient length of time to allow the passage of the semen. It is experiments to discover the erectile condition of the fallopian tubes necessary for the application of the semen to the ovaries are no more entitled to authority than the proceeding as the very pain and irritation induced by the operation may have disturbed the regularity which nature otherwise pursues and suspended the effect of that stimulus which impregnation had begun.

The truth of this doctrine receives considerable support from the frequent occurrence of extra uterine pregnancies an accident which can only take place by the direct application of the semen to the ovaries.

Though it may be affirmed that these cases are morbid deflections from the common course of nature still it is highly probable that she employs no other method for animating the germ when it passes regularly through the tubes and is lodged in the cavity of the uterus.

If it be conceded that the semen is necessary to the fecundation of the ova how can we explain its application to those bodies in extra uterine pregnancies if not through the medium of the fallopian tubes. x

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Though many respectable and experienced experimentalists have never been able to distinguish semen in the fallopian tubes it is only a negative proof against a truth which has strong claims to probability. It behoves us then to receive all conclusions drawn from such a source as problematical.

A few well authenticated facts in support of any theory are sufficient to withstand a host of oppositions derived from a negative plan of reasoning.

Stuebel asserts (and we have no right to doubt his veracity) that among many other antiseptics he himself discovered the semen frequently in the fallopian tubes. Morgagni has discovered it in the uterus of a sheep forty five minutes post coitus. He further also declares that (during his well known experiment) he perceived the semen pass per partum into the uterus.

Analogical also affords us a strong inducement to yield our belief to the verity of this doctrine. It is known to many that in some animals the contact of the semen with the germ is requisite for its animation and evolution. and the experiments of Spallanzani prove that a very small quantity only is requisite for the purpose.

Though the analogical facts derived from the animals above alluded to are not so satisfactory as if they bore a stronger resemblance in the anatomical structure of their organs and physiological character of their functions to the human species, we are inclined to believe that nature adopts the same method for the completion of her favourite object in this last as in the former.

